

of streams and other wetlands, retention of ponds and impoundments, establishment of vegetation for wildlife food and cover, and the replacement of perches and nest boxes. Where the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable.

(c) *Fish and Wildlife Service review.* Upon request, the regulatory authority shall provide the resource information required under paragraph (a) of this section and the protection and enhancement plan required under paragraph (b) of this section to the U.S. Department of the Interior, Fish and Wildlife Service Regional or Field Office for their review. This information shall be provided within 10 days of receipt of the request from the Service.

[52 FR 47359, Dec. 11, 1987]

§ 780.18 Reclamation plan: General requirements.

(a) Each application shall contain a plan for reclamation of the lands within the proposed permit area, showing how the applicant will comply with section 515 of the Act, subchapter K of this chapter, and the environmental protection performance standards of the regulatory program. The plan shall include, at a minimum, all information required under 30 CFR 780.18 through 780.37.

(b) Each plan shall contain the following information for the proposed permit area—

(1) A detailed timetable for the completion of each major step in the reclamation plan;

(2) A detailed estimate of the cost of reclamation of the proposed operations required to be covered by a performance bond under subchapter J of this chapter, with supporting calculations for the estimates;

(3) A plan for backfilling, soil stabilization, compacting, and grading, with contour maps or cross sections that show the anticipated final surface configuration of the proposed permit area, in accordance with 30 CFR 816.102 through 816.107;

(4) A plan for removal, storage, and redistribution of topsoil, subsoil, and other material to meet the requirements of § 816.22 of this chapter. A dem-

onstration of the suitability of topsoil substitutes or supplements under § 816.22(b) of this chapter shall be based upon analysis of the thickness of soil horizons, total depth, texture, percent coarse fragments, pH, and areal extent of the different kinds of soils. The regulatory authority may require other chemical and physical analyses, field-site trials, or greenhouse tests if determined to be necessary or desirable to demonstrate the suitability of the topsoil substitutes or supplements.

(5) A plan for revegetation as required in 30 CFR 816.111 through 816.116, including, but not limited to, descriptions of the—

- (i) Schedule of revegetation;
- (ii) Species and amounts per acre of seeds and seedlings to be used;
- (iii) Methods to be used in planting and seeding;
- (iv) Mulching techniques;
- (v) Irrigation, if appropriate, and pest and disease control measures, if any; and

(vi) Measures proposed to be used to determine the success of revegetation as required in 30 CFR 816.116.

(vii) A soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation.

(6) A description of the measures to be used to maximize the use and conservation of the coal resource as required in 30 CFR 816.59;

(7) A description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with 30 CFR 816.89 and 816.102 and a description of the contingency plans which have been developed to preclude sustained combustion of such materials;

(8) A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings, and to plug, case, or manage exploration holes, other bore holes, wells, and other openings within the proposed permit area, in accordance with 30 CFR 816.13 through 816.15; and

(9) A description of steps to be taken to comply with the requirements of the Clean Air Act (42 U.S.C. 7401 *et seq.*),

the Clean Water Act (33 U.S.C. 1251 *et seq.*), and other applicable air and water quality laws and regulations and health and safety standards.

[44 FR 15357, Mar. 13, 1979, as amended at 48 FR 22100, May 16, 1983; 48 FR 44779, Sept. 30, 1983]

§ 780.21 Hydrologic information.

(a) *Sampling and analysis methodology.* All water-quality analyses performed to meet the requirements of this section shall be conducted according to the methodology in the 15th edition of "Standard Methods for the Examination of Water and Wastewater," which is incorporated by reference, or the methodology in 40 CFR parts 136 and 434. Water quality sampling performed to meet the requirements of this section shall be conducted according to either methodology listed above when feasible. "Standard Methods for the Examination of Water and Wastewater," is a joint publication of the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation and is available from the American Public Health Association, 1015 15th Street, NW., Washington, DC 20036. This document is also available for inspection at the Office of the OSM Administrative Record, U.S. Department of the Interior, Room 5315, 1100 L Street, NW., Washington, DC; at the OSM Eastern Technical Service Center, U.S. Department of the Interior, Building 10, Parkway Center, Pittsburgh, Pa.; at the OSM Western Technical Service Center, U.S. Department of the Interior, Brooks Tower, 1020 15th Street, Denver, Colo or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. This incorporation by reference was approved by the Director of the Federal Register on October 26, 1983. This document is incorporated as it exists on the date of the approval, and a notice of any change in it will be published in the FEDERAL REGISTER.

(b) *Baseline information.* The application shall include the following base-

line hydrologic information, and any additional information required by the regulatory authority.

(1) *Ground-water information.* The location and ownership for the permit and adjacent areas of existing wells, springs, and other ground-water resources, seasonal quality and quantity of ground water, and usage. Water quality descriptions shall include, at a minimum, total dissolved solids or specific conductance corrected to 25 °C, pH, total iron, and total manganese. Ground-water quantity descriptions shall include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water-bearing stratum above and potentially impacted stratum below the coal seam.

(2) *Surface-water information.* The name, location, ownership, and description of all surface-water bodies such as streams, lakes, and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage. Water quality descriptions shall include, at a minimum, baseline information on total suspended solids, total dissolved solids or specific conductance corrected to 25 °C, pH, total iron, and total manganese. Baseline acidity and alkalinity information shall be provided if there is a potential for acid drainage from the proposed mining operation. Water quantity descriptions shall include, at a minimum, baseline information on seasonal flow rates.

(3) *Supplemental information.* If the determination of the probable hydrologic consequences (PHC) required by paragraph (f) of this section indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies, then information supplemental to that required under paragraphs (b) (1) and (2) of this section shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon